

AMENDMENTS TO THE CLAIMS

1. (Cancelled)

2. (Previously Amended) A regenerator disposed on a flow passage for a working gas, formed by stacking a film-shaped resin member in a direction crossing a flow direction of the working gas,

said resin member including a projection formed by subjecting a surface of said resin member to plastic deformation and having an opening on its tip, and

said projection providing a gap between layers of said stacked resin member.

3. (Cancelled)

4. (Cancelled)

5. (Previously Amended) A regenerator disposed on a flow passage for a working gas, formed by stacking a film-shaped resin member in a direction crossing a flow direction of the working gas,

said resin member including a projection formed by subjecting a surface of said resin member to plastic deformation, and

on the surface of said resin member, the projection in a prescribed

region being adjusted to have a height different from a height of the projection in another region.

6. (Cancelled)

7. (Cancelled)

8. (Currently Amended) A regenerator disposed on a flow passage for a working gas flowing between a compression space and an expansion space of a Stirling refrigerator, formed by stacking a film-shaped resin member (8) in a direction crossing a flow direction of said working gas,

said resin member having a plurality of projections on its surface,

said plurality of projections providing a gap between layers of said stacked resin member, and

on the surface of said resin member, the number of the projections ~~(10)~~ per unit area being increased as the distance from said expansion space decreases, compared to the side of said compression space.

9. (Previously Amended) A Stirling refrigerator, provided with a regenerator that is disposed on a flow passage for a working gas and is formed by stacking a film-shaped resin member in a direction crossing a flow direction of the working gas,

said resin member including a projection formed by subjecting a surface of said resin member to plastic deformation and having an opening on its tip, and

said projection providing a gap between layers of said stacked resin member.

10. (Previously Amended) A Stirling refrigerator, provided with a regenerator that is disposed on a flow passage for a working gas flowing between a compression space and an expansion space and is formed by stacking a film-shaped resin member in a direction crossing a flow direction of said working gas,

said resin member having a plurality of projections on its surface,

said plurality of projections providing a gap between layers of said stacked resin member,
and

on the surface of said resin member, the projection in a prescribed region being adjusted
to have a height that is different from a height of the projection in another region.

11. (Previously Amended) A Stirling refrigerator, provided with a regenerator that is
disposed on a flow passage for a working gas flowing between a compression space and an
expansion space and is formed by stacking a film-shaped resin member in a direction crossing a
flow direction of said working gas,

said resin member having a plurality of projections on its surface,
said plurality of projections providing a gap between layers of said stacked resin member,
and

on the surface of said resin member, the number of said projections per unit area being
increased as the distance from said expansion space decreases, compared to the side of said
compression space.

12. (Cancelled)

13. (Cancelled)

14. (Cancelled)

15. (Cancelled)

16. (Cancelled)

17. (Currently Amended) A manufacturing apparatus of a regenerator, forming a
projection on a surface of a film-shaped resin member, comprising:

sending means for sending said film-shaped resin member in one direction;

projection formation means for subjecting the surface of said film-shaped resin member (8) to plastic deformation to form said projection ; and

height adjustment means, having a pair of pinching members spaced apart from each other by a predetermined distance and arranged to face each other in a direction crossing the surface of said film-shaped resin member on a downstream side of said projection formation means, for adjusting a height of said projection formed by said projection formation means by letting said film-shaped resin member pass through a gap between said pinching members.

18. (Cancelled)

19. (Cancelled)